

Table IX

Test station					Firing area—Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Electrical and pneumatic
IF POWER TRANSFER IS PERFORMED WITH THE MISSILE IN THE VERTICAL POSITION USE ONLY STEPS 16 THROUGH 19. AFTER ACTIVATION, SATISFACTORY BATTERY PERFORMANCE IS ASSURED FOR 12 HOURS.					
POWER TRANSFER TEST	POWER TRANSFER TEST	POWER TRANSFER TEST	POWER TRANSFER TEST	POWER TRANSFER TEST	POWER TRANSFER TEST
1. Insure that the Communications Power Selector switch is in the Truck Battery position (CC).					
2. Have all stations check with Test Station.					
3. Turn all switches to Normal or Off position.	3. Turn all switches to Normal or Off position.	3. Turn all switches to Normal or Off position.	3. Turn all switches to Normal or Off position.	3. With the exception of the Sequence Recorder, turn all switches to Normal or Off. THE SEQUENCE RECORDER REMAINS READY FOR USE.	
	4. Turn Pressurize switch on (PP). SPHERES WILL RE-PRESSURIZE AT STEP 9.				
	5. Turn Networks and Inverter BUS switches on and Command BUS switch to missile position (EP).				
	6. Request Networks voltage from Power Distribution Station. a. Plugs OK lamp On (PP). b. Detonators Connected lamp On (PP). c. Networks BUS voltage meter indicates that voltage is present (EP).			6. Pen No. 16 picks up (SP).	6. Turn the Network BUS Output switch On (PDS). General BUS meter indicates 28-29 volts (PDS). OBSERVE CURRENT METER FOR INDICATION OF EXCESSIVE LOADING. MAINTAIN 28-29 VOLTS ON THE GENERAL BUS METER BY ADJUSTING THE VOLTAGE CONTROL RHEO-STAT.

Table IX—Continued

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Test station					Firing area—Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Electrical and pneumatic
POWER TRANSFER TEST—Continued 7. Turn Communications Power Selector switch to MG Set position (CC).	POWER TRANSFER TEST—Continued 7. Turn Battery Heater switch on (EP). Below Temp lamp On (EP). This lamp may not come on if batteries are at operating temperature.	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued
	8. Request Inverter BUS voltage from Power Distribution Station. Inverter BUS Volt meter indicates that voltage is present (EP).				8. Turn the Inverter Bus Output switch On (PDS). Inverter BUS meter indicates 28-29 volts (PDS). OBSERVE CURRENT METER FOR INDICATIONS OF EXCESSIVE LOADING. MAINTAIN 28-29 VOLTS ON THE INVERTER BUS METER BY ADJUSTING THE VOLTAGE CONTROL RHEOSTAT.
	9. Turn the Operation Selector switch to Power On position (PP). a. ALC Temp meter deflects (PP). b. H ₂ O ₂ Temp meter deflects (PP). c. Drop Tank OK lamp On (PP). d. Low Pressure OK lamp On (PP). e. Guidance Voltage Failure lamp blinks (EP).	9. a. Indicator H (Attitude Signals) lamp On (SC). b. Step switch zero lamp On (SP). c. Dive Program Zero lamp On (SP). d. Air Pressure Supply lamp On.	9. a. Indicator H (Calibrate Repeat Power) lamp On (RP). b. Velocity Brake lamp On (RP). c. Displacement Brake lamp On (RP). d. 400 cps Power On lamp On (RP). e. Repeat lamp On (RC).	9. a. Indicator H (Calibrate Repeat Power) lamp On (LP). b. Velocity Detent Meter reads in black zone (LP). c. Displacement Detent meter reads in black zone (LP). d. 400 cps Power On lamp On (LP). e. Calibrate Time lamp On (LC). f. Reverse lamp On (PD). g. Pen Number 12 picks up (SR).	9. Inlet Pressure Gage stabilizes at 2000 psi (VB).

Table IX—Continued

Test station					Firing area—Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Electrical and pneumatic
POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued
			10. Depress 400 cps Power Off pushbutton (RP). a. 400 cps Power On lamp Off (RP). b. 400 cps Power Off lamp On (RP).	10. Depress 400 cps Power Off pushbutton (LP). a. 400 cps Power On lamp Off (LP). b. 400 cps Power Off lamp On (LP).	
11. Turn Inverter Switch On (IC). Inverter phase lamps On (IC).	11. Command BUS meter indicates voltage is present (EP).				11. Command BUS meter indicates 60 volts (PDS). IF COMMAND BUS METER DOES NOT INDICATE 60 VOLTS HAVE CONTROL VOLTAGE SUPPLY ADJUSTED UNTIL COMMAND BUS METER INDICATES 60 VOLTS.
12. Rotate AC Voltmeter Selector switch through AB, BC, AC, Positions (IC). AC Voltmeter indicates 115 ± 2 volts in each position (EP).					
13. Turn Power Switch On (PG). Power lamp On (PG).		13. Turn Guidance Cutout switch On (SP). Guidance Signal Off lamp On (SP).			
	14. Turn Operation Selector switch to Test. Guidance OK lamp On.	14. Turn Control Computer switch On.		14. Turn Power switch on (PD). Zero lamp On (PD).	
	15. Depress Guidance Voltage Failure Reset button (EP). Guidance Voltage Failure Lamp Off (EP). INSURE BATTERY BELOW TEMP LAMP IS OFF BEFORE PERFORMING STEP 16	15. Turn Rudder Drive switch On (SP). Vane Position meters read 0 (SP).	15. Depress 400 cps Power On pushbutton (RP). a. 400 cps Power On lamp On (RP). b. 400 cps Power Off lamp Off (RP).	15. Depress 400 cps Power On pushbutton (LP). a. 400 cps Power On lamp On (LP). b. 400 cps Power Off lamp Off (LP).	

Table IX—Continued

Test station					Firing area—Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral land program console	Electrical and pneumatic
POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued	POWER TRANSFER TEST—Continued
16. Announce that all personnel must stand clear of battery sump vent.	16. Turn Battery Activate Switch to Activate (EP).				16. Insure Power switch on 60 volt Power panel is in Battery On position (PDS).
	WAIT 5 MINUTES BEFORE PERFORMING STEP 17. 17. Turn Power Transfer switch On (EP).				17. At the Power Distribution Station, record Missile voltages as indicated by the General BUS, Inverter BUS, and Command BUS voltmeters. If Voltages are not within the following tolerances, the faulty battery or converter must be replaced. General BUS 27.5 to 30 volts. Inverter BUS 27.5 to 31 volts. Command BUS 59 to 60.5 volts.
	18. Turn Power Transfer switch Off (EP).				
					19. Adjust Ground Power supplied to read values recorded in Step 17 (PDS).
DO NOT PERFORM STEP 20 IF THIS TEST IS PERFORMED IN THE VERTICAL POSITION					
20. Turn all switches Off or Normal position. (Use Normal power down procedures, Table III.)	20. Turn all switches to Off or Normal position. (Use Normal power down procedures, Table III.)	20. Turn all switches to Off or Normal position. (Use Normal power down procedures, Table III.)	20. Turn all switches to Off or Normal position. (Use Normal power down procedures, Table III.)	20. With the exception of the sequence recorder, turn all switches to Off or Normal Position. (Use Normal power down procedures, Table III.)	20. Turn Inverter BUS and General BUS output switches Off. (Use Normal power down procedures, Table III.)
END OF TABLE IX	END OF TABLE IX	END OF TABLE IX	END OF TABLE IX	END OF TABLE IX	END OF TABLE IX

Table X

Firing area		
Firing section	Servicing section	
	Electrical and pneumatic	Handling and fueling
<p>PREPARATION FOR ERECTION</p> <ol style="list-style-type: none"> 1. Disconnect Program Test Cable (W-3802) at Plugs P-1025 (TS) and P-6701-C (missile), if flight tape has been recorded as set out in IV-33. 2. Remove Communication Boxes and Cable from Missile Plugs P-4109-A and P-4109-B. 3. Remove flight Simulator Test Box and Cables. <ol style="list-style-type: none"> a. Disconnect W-3833 at Plugs P-4117 (Control Distributor) and P-3701 (FB). b. Disconnect W-3567 at Plugs P-3702 (FB) and P-3733 (SB). 4. Remove Servo Interrupt Box and Cable. <ol style="list-style-type: none"> a. Disconnect W-3574 at P-6403 (SB). b. Connect P-6403 to J-6403 on Control Relay Box. 5. Remove Amplifier Load Box. <ol style="list-style-type: none"> a. Disconnect Amplifier Load Box from Servo Loop Amplifier, Alinement Amplifier, and Control Computer. b. Connect P-5602 and P-5603 to Servo Loop Amplifier. c. Connect P-5502 to Alinement Amplifier. d. Connect P-6302 to Control Computer. <p>END OF PREPARATION FOR ERECTION</p> <p>DROP TANK INSTALLATION</p> <ol style="list-style-type: none"> 1. Prepare the drop tank for installation. <ol style="list-style-type: none"> a. Remove the rainshield assembly. b. Insure that all moisture barrier material is removed from the droptank. c. Using a spanner wrench, rotate clockwise each spanner nut until the jettison springs are completely compressed. d. Retract both adjusting pads to insure they will be free of the drop tank weight and away from the missile. <p>IT IS RECOMMENDED THAT A 5-TON WRECKER BE USED TO PERFORM STEP 2.</p> <ol style="list-style-type: none"> 2. Lift the drop tank and position it above the missile between air vanes II and III. <p>DO NOT PHYSICALLY INSTALL DROP TANK UNTIL INSTRUMENT COMPARTMENT LEAK TEST HAS BEEN COMPLETED.</p>	<p>PREPARATION FOR ERECTION</p> <ol style="list-style-type: none"> 1. Remove air-bearing Regulator Gage. 2. Insure that the following components are tightly connected and safety wired. <ol style="list-style-type: none"> a. Control Computer. b. Control Relay Box. c. Range Computer. d. Lateral Computer. e. Servo Loop Amplifier. f. Alinement Amplifier. g. ST-80. h. Control Distributor. i. Power Distributor. j. Warhead Plugs. k. Program Device. 3. Remove Plastic plugs from Breather valves on "Black Boxes" in instrument Compartment. 4. Insure that instrument compartment is free of all loose items and foreign material. 5. Have Instrument Compartment and Payload doors closed. 6. Remove Jet Nozzle Regulator gage. 7. Remove engine pneumatic regulator gage. <p>END OF PREPARATION FOR ERECTION</p> <p>INSTRUMENT COMPARTMENT LEAK TEST</p> <p>STEPS 1 THROUGH 5 OF THE FOLLOWING TEST MAY BE PERFORMED CONCURRENT WITH PREPARATION FOR ERECTION.</p> <ol style="list-style-type: none"> 1. Remove instrument Pressure-Relief valve in Skirt section. 2. Attach Pressurizing Adapter to the Relief valve mounting Flange. 3. Connect 1/2-inch hose to the fitting on the adapter. 4. Connect 3/4-inch hose to the fitting on the adapter. 5. Connect 3/8-inch line to gage on field kit control panel. 6. Open Bypass valve (Air Servicer) and Sphere Bypass valve (Valve Box). 7. Connect other end of 1/2-inch line to vent connection on control panel close vent and watch gage indication. When the gage reaches 5 psi, open vent on control panel and close sphere bypass valve at valve box. 	<p>PREPARATION FOR ERECTION</p> <ol style="list-style-type: none"> 1. Check level of Launcher and adjust as necessary. 2. Install burner Platform. 3. Set LOX Leveling Device. <ol style="list-style-type: none"> a. Remove the LOX leveling adjustment access cover. b. Install the LOX leveling device adjustment fixture as follows: <ol style="list-style-type: none"> 1. Place the adjustment fixture over the exposed recess so that the socket arrangement in the fixture is in position to receive the LOX leveling device actuating pin and locking nut. 2. Lower the fixture and maneuver it until the LOX leveling device actuating pin and the hex locking nut are properly seated in their respective coaxial sockets. 3. Turn the adjustment fixture until the 2 mounting holes in the frame coincide with the 2 tapped holes in the missile. 4. Engage the hex-head mounting screws and secure the adjustment fixture on the missile. Shake the fixture slightly during the tightening process to insure proper seating of mated parts. c. Loosen the wing nut securing the sliding scale to the adjustment fixture frame. Slide the scale to orient the zero line with the scribe mark on a small plate which is welded to the missile skin at a point adjacent to the scale. When the scale is correctly oriented, tighten the wing nut to maintain positioning. d. Secure the pivot end of the pointer arm to the LOX leveling device actuating pin by engaging and tightening the hex-head screw that fits through a hole in the pointer arm and threads into the tapped hole centered in the end face of the actuating pin. Shake the pointer arm slightly during the tightening process to insure proper seating, but make certain that the pointer stays on zero. e. Using a power handle (half-inch drive) turn the coaxial socket on the adjustment fixture until the locking nut on the LOX leveling device actuating pin is loosened sufficiently to allow rotation of the pin. f. Using only the firing position altitude figure, set the adjustment fixture pointer to the scale reading which corresponds to the figure indicated on the surface of the cover.

Table X—Continued

Firing area		
Firing section	Servicing section	
	Electrical and pneumatic	Handling and fueling
<p>DROP TANK INSTALLATION—Continued</p> <ol style="list-style-type: none"> Insert the boom yoke in the pivot point on the missile so that it rests against the pivot point. Lower the drop tank until the hose connectors are inserted into the missile receiver plate holes. Rotate the boom turnbuckle counterclockwise until the hose connectors are seated against the aft edge of the receiver plate holes. Rotate the turnbuckle clockwise until the boom yoke is seated securely in the pivot point without moving the drop tank. Rotate the turnbuckle two (2) additional clockwise revolutions. Install the ball-lock in the receiver plate cavity and secure it in place by means of the locking lever and squib. Extend both adjusting pads until the entire drop tank is secured in place. Back off each spanner nut until it hits the back flange of the hose connector. Connect P-4208-A to J-4208-A. Connect P-4631-A to J-4631-A and adjust the harness so that chains will disconnect the connector before the harness becomes taut during ejection of the drop tank. Replace the rainshield assembly. Connect P-4972 to J-4972 and P-4893 to J-4893. Connect P-4983 to J-4983 on dehumidifier fill valve. Insure all other electrical cables are connected. <p>END OF INSTALLATION</p> <p>END OF TABLE X</p>	<p>INSTRUMENT COMPARTMENT LEAK TEST—Con.</p> <p>IF 5 PSI CANNOT BE OBTAINED BY AIR BEARING BLEED OFF, CLOSE SPHERE BYPASS VALVE ON VALVE BOX AND OPEN VENT ON CONTROL PANEL. AFTER GAGE READS ZERO, REPAIR LEAKAGE. OPEN SPHERE BYPASS VALVE AND REPEAT STEPS 7 AND 8.</p> <ol style="list-style-type: none"> Depress precooling valve assembly to vent instrument compartment. <p>DO NOT OPEN INSTRUMENT COMPARTMENT OR PAYLOAD COMPARTMENT DOORS UNTIL ALL PRESSURE HAS BEEN REMOVED.</p> <ol style="list-style-type: none"> After gage reads zero, disconnect all test hose. Remove adapter and replace instrument compartment relief valve. <p>INSURE THAT THE RUBBER GASKET IS INSTALLED.</p> <ol style="list-style-type: none"> Secure valves and vents on valve box. <ol style="list-style-type: none"> Close the 300 psi bypass valve. (Air Servicer). Close Regulator inlet (VB). Open sphere bypass and vent valves (VB). Open Purge and Igniter Bottle Pressurizing valve (VB). (Not necessary if missile is going to be erected) Open Auxiliary Supply vent on Auxiliary Air-Supply bottle (VB). (Not necessary if missile is going to be erected) Insure that Skirt Section is free of all loose items and foreign material. Notify the Handling and Fueling Section to secure skirt section door. <p>END OF INSTRUMENT COMPARTMENT LEAK TEST</p> <p>DROP TANK INSTALLATION</p> <p>Assist as required in installing Drop-Tank.</p> <p>END OF TABLE X</p>	<p>PREPARATION FOR ERECTION—Continued</p> <ol style="list-style-type: none"> When correctly set, lock the pointer in place by means of the screw clamp and tighten the locking nut on the LOX leveling device actuating pin. Disengage the screw securing the pointer arm of the adjustment fixture to the LOX leveling device actuating pin. Then, disengage the 2 screws securing the adjustment fixture frame to the missile, lift and remove the fixture from the missile, and fasten the access cover back in place. Remove all Lifting lugs except those used for erection. Inspect Gaskets before closing and securing Instrument Compartment and Payload doors. <p>Torque Doors at 75±10 inch pounds. Doors are secured upon command of Chief of Electrical and Pneumatic Section.</p> Remove protective Cover from Porro Prism. Connect Hydraulic cart to the AC Distribution Box. Position, orient and extend arresting cylinders. Insure that Frame locks are completely disengaged. Insure attaching collars are secured. Secure the Skirt Section door, upon command of the Chief of Electrical and Pneumatic Section. Position the LN₂ supply vehicle to facilitate filling the drop tank. Connect the 10 foot section of insulated hose to the discharge port of the LN₂ vehicle and insure vent portion is not capped. Connect LN₂ fill line to insulated hose at Supply Vehicle. Pressurize the LN₂ tank (approx 40 psig) of the supply vehicle using the steps outlined on the Operator Compartment door. Insure that all switches on LN₂ Control Box are Off. <p>AIR RUDDERS AND CARBON JET VANES MAY BE INSTALLED AT THIS TIME IF DESIRED: FOR INSTRUCTIONS, SEE TABLE XII.</p> <p>END OF PREPARATION FOR ERECTION</p> <p>END OF TABLE X</p>

Table XI
Firing area
Servicing section
Handling and fueling

ERECTION

1. Insure that all preparations have been made for erection.
 2. Insure that Launcher is level and that Outrigger jacks are firmly touching the ground.
- THE REDSTONE MISSILE CAN WITHSTAND VELOCITIES OF 48 KNOTS WHEN NOT FUELED, AND 90 KNOTS WHEN FUELED.
3. Insure that tension lever on main erection winch is OFF.
 4. Pull out Drum lock before operating Winch.
 5. Engage the Power Takeoff gear by moving the Control Lever Clockwise; lock and pin the Control Lever.
- THE POWER TAKEOFF GEAR CONTROL LEVER IS LOCATED TO THE RIGHT OF THE WINCH CABLE DRUM (DIRECTLY BEHIND THE DRIVER'S SEAT).
6. Place the Transfer Lever in the Truck cab in Neutral (center position).
 7. Select the desired gear on the Regular transmission shift to operate the 10-ton Winch. This is usually Second or Third gear.
 8. Erect the missile slowly until the Center of Gravity approaches the Vertical. INSURE THAT WINCH CABLE STRANDS ARE TIGHTLY WOUND AGAINST EACH OTHER.
 9. When the Missile nears the Vertical position, engage the Arresting Cylinder forks with the Rotating Frame arresting points.
 10. Slowly retract the Arresting Cylinder forks by operating the Flow Control valve on the Hydraulic cart as the winch operator continues to take up on the Winch cable until the missile's center of gravity shifts.
- TAKE UP THE SLACK BUT DO NOT PUT A STRAIN ON THE WINCH CABLE AFTER THE MISSILE'S CENTER OF GRAVITY HAS SHIFTED.
11. Continue to slowly retract the Arresting Cylinder forks until the Rotating Frame assembly rollers are resting on the surface of the Top Ring of the Launcher.
 12. Turn winch cable power OFF when missile is on the launcher.
 13. Disengage and stow the arresting cylinder forks.
 14. Detach erecting cables from equalizer cable on A-frame.
 15. Disengage and remove A-frame from launcher (out of the way for subsequent operations).
 16. Disconnect erecting cables from the missile by pulling on the release cables. Then lower cables to the ground and stow. (Step 16 may be performed later if desired).
 17. Disconnect H-frame from launcher mounting bracket.
 18. Remove support jacks from rear of erector truck.
 19. With sufficient number of personnel holding H-frame support jacks clear of ground, move erector truck forward far enough so that the H-frame will not interfere with laying of the missile.
 20. Pivot down the A- and H-frame bracket.
 21. Remove pivot pins and wedges.
 22. Remove the open eye pivot supports.
 23. Raise the outrigger jacks and level launcher.
 24. Remove warhead trailer from area.
 25. INFORM THE LAYING TEAM THAT PRELIMINARY LAYING CAN NOW BE STARTED.

END OF TABLE XI

Table XII

Firing area

Firing section	Servicing section		
	Electrical and pneumatic	Handling and fueling	Survey section
<p>ELECTRICAL PREPARATIONS FOR VERTICAL CHECKOUT</p> <ol style="list-style-type: none"> 1. Move the relay box and stand to take up the slack between the tail plugs and relay box. Insure that the relay box is in the blast protected area in line with any launcher leg and center of launcher. 2. Replace and secure cover on relay box. 3. Stake and secure relay box stand into position. 4. Move the heater control box close to the relay box. 5. Stake and secure heater control box. 6. Insure blind plug P-4017 is not connected in the missile. <p>NOTE</p> <p>For training exercises use only dummy squib. Place squib in vicinity of relay box.</p> <p>DO NOT INSTALL SQUIB IN INJECTOR PLATE</p> <ol style="list-style-type: none"> 7. Install igniter squib. <ol style="list-style-type: none"> a. Connect squib cable to squib at P-4816. b. Screw igniter squib into center of injector plate. c. Connect ignition squib harness (W51432) to igniter squib cable P-4816. DO NOT CONNECT IGNITION HARNESS (W51432) TO RELAY BOX AT THIS TIME. <p>END OF ELECTRICAL PREPARATIONS</p>	<p>PNEUMATIC AND ELECTRICAL PREPARATIONS FOR VERTICAL CHECKOUT</p> <p>DO NOT START THIS SECTION WITHOUT THE APPROVAL OF THE OFFICER IN CHARGE. ITEMS 6, 7 AND 8 OF THIS SECTION NEED NOT BE COMPLETED BEFORE STARTING TABLE XIII.</p> <ol style="list-style-type: none"> 1. Insure that all valves are closed in the valve box. <p>LISTEN FOR AUDIBLE LEAKAGE.</p> <ol style="list-style-type: none"> 2. Open the by-pass valve (Air Servicer). <p>Inlet Pressure Gage registers 2,000 psi (VB).</p> <ol style="list-style-type: none"> 3. Open the Regulator-Inlet valve (VB). <ol style="list-style-type: none"> a. Regulator Gage registers 750 psi (VB). b. LOX Vent Valve opens (missile). 4. Open Sphere By-pass valve and leave open until inlet-pressure gage stabilizes at 2,000 psi (VB). 5. Close Sphere By-pass valve (VB). 6. Purge the Injector Plate (missile). <ol style="list-style-type: none"> a. Connect the Igniter ALC pressurizing Line between the Valve box and the Injector Purge Coupling on the missile balcony. b. At the Valve Box, crack the Purge and Igniter valve until a hiss from the Injector Plate becomes audible. c. Purge for approximately 2 minutes. d. Close the Purge and Igniter Valve. <p>DO NOT DISCONNECT AIR LINE. THIS OPERATION WILL BE DONE AGAIN IN TABLE XVII.</p> <ol style="list-style-type: none"> 7. Cover exposed cables with protective covers of improvised materials. 8. Check that all cables connected between the launcher, remote firing panel and power distribution trailer are protected from blast and anchored with sand bags. <p>END OF ELECTRICAL AND PNEUMATIC PREPARATIONS.</p>	<p>ALL ITEMS IN THIS TABLE SECTION DO NOT HAVE TO BE COMPLETED BEFORE STARTING TABLE XIII.</p> <p>H-FRAME ERECTION</p> <ol style="list-style-type: none"> 1. Remove the three-part block from the A-frame. 2. Remove the chain hoist blocks and cable. 3. Disassemble A-frame sections and place to one side (out of the way for subsequent operations). 4. Remove support jacks nearest launcher and install servicing platform. 5. Connect and secure tension support wire from servicing platform to lugs on the first sections of the H-frame. 6. Replace yoke bolt in the 3-part block with the small sheave. 7. Raise erector frame on truck. 8. Reeve the H-frame erecting cable from the small sheave to the H-frame connections. 9. Using the main erection winch, raise the H-frame until the weight is off the support jacks. 10. Insure pulley is installed on elevator support. 11. Connect the personnel winch power cable to the AC distribution box. 12. Reeve the personnel winch cable over the H-frame spreaders and to the pulley on the elevator support. The cable is then reeved back towards the truck through the service platform doors and connected to the elevator. 13. Remove H-frame tension wire ropes and supports. 14. Detach H-frame support jacks. 15. Open the service platform doors. 16. Attach guide lines to free end of H-frame to assist in steadying the servicing platform during erection. 17. Install support jacks under rear of erector trucks. 	<p>PRELIMINARY LAYING</p> <ol style="list-style-type: none"> 1. Lay the missile within 1 degree of the firing azimuth. <p>FOR COMPLETE DETAILS ON MISSILE LAYING PROCEDURES, REFER TO FM 6-35. INFORM THE FIRING AND SERVICING SECTION WHEN PRELIMINARY LAYING IS STARTED AND COMPLETED SO THAT NO ACTIVITY WILL BE GOING ON AT THE MISSILE OR LAUNCHER THAT WILL INTERFERE WITH LAYING. UPON COMPLETION OF PRELIMINARY LAYING, INSURE THAT THE FRAME LOCKS ON THE LAUNCHER ARE SECURED AND LOCKED.</p> <p>END OF PRELIMINARY LAYING</p>

Table XII—Continued

Firing area			
Firing section	Servicing section		
	Electrical and pneumatic	Handling and fueling	Survey section
		<p>H-FRAME ERECTION—Continued</p> <p>18. Continue erection of H-frame with the main erection winch until the H-frame rests against the stops on the rear of the truck chassis.</p> <p>19. Remove the two support jacks from rear of erector truck.</p> <p>20. Lower erector frame to truck bed. STEPS 21, 22, AND 23 DO NOT HAVE TO BE DONE UNTIL SERVICING IS REQUIRED.</p> <p>21. Attach a guide rope to each end of the elevator platform to assist in steadying the elevator when raised. A TEST RUN SHOULD BE MADE PRIOR TO USE BY PERSONNEL TO CHECK THE SAFETY STOP SWITCH</p> <p>22. Back up erector truck to position the servicing platform near the missile.</p> <p>23. Operate personnel winch to raise elevator.</p> <p>PROPELLANT LOADING PREPARATIONS</p> <p>1. Install and secure propellant loading ladder.</p> <p>2. Connect ALC fill and drain valve to missile.</p> <p>3. Connect ALC transfer hose.</p> <p>4. Insure that the LOX Vent Valve is open and connect LOX vent conduit to missile and launcher.</p> <p>5. Attach LOX Vent Flexible conduit. INSURE LOX FILL AND DRAIN VALVE IS CLEAN. LUBRICATE WITH MOLYCOTE TYPE Z POWDER PRIOR TO EACH USE.</p> <p>6. Connect LOX fill and drain valve to missile. DO NOT TIGHTEN UNTIL TRANSFER HOSE IS CONNECTED.</p> <p>7. Install LOX filter at the bottom of propellant loading ladder. Cone points down stream.</p>	

Table XII—Continued

Firing area			
Firing section	Servicing section		
	Electrical and pneumatic	Handling and fueling	Survey section
		<p>PROPELLANT LOADING PREPARATIONS—Continued</p> <p>8. Connect LOX Transfer hose between top of propellant loading ladder and LOX fill and drain valve.</p> <p>INSURE TRANSFER HOSE WILL NOT HINDER MOVEMENT OF PERSONNEL ON LADDER.</p> <p>9. Tighten LOX fill and drain valve.</p> <p>10. Torque Turbine.</p> <p>AT AMBIENT TEMPERATURES MAXIMUM TORQUE MUST NOT EXCEED 37.5 INCH POUNDS BREAKAWAY AND 12.5 INCH POUNDS RUNNING.</p> <p>11. Position and connect six sections of LOX replenishing hoses from launcher to area in which replenishing trailer will be positioned and tighten connections.</p> <p>INSTALL LOX FILTER BETWEEN THE 5th AND 6th SECTIONS AWAY FROM THE LAUNCHER. CONE POINTS DOWN STREAM.</p> <p>12. Place LOX Y-connector approximately 5 feet from propellant loading ladder.</p> <p>13. Connect one or two (as needed) 10 foot sections of LOX transfer hose between Y-connector and propellant loading ladder.</p> <p>14. Close LOX vent valve in Y-connector.</p> <p>15. Install tail assembly heater.</p> <p>a. Connect heater ducts together and extend to full length.</p> <p>b. Connect duct to heater.</p> <p>c. Connect duct into port provided on missile between Fins I and II.</p> <p>END OF PROPELLANT LOADING PREPARATIONS.</p> <p>ACCESSORY EQUIPMENT INSTALLATIONS</p> <p>1. Attach platforms on each side of missile for access to tail section.</p> <p>2. Install access ladders against launcher ring, below platforms.</p>	

Table XII—Continued

Firing area			
Firing section	Servicing section		
	Electrical and pneumatic	Handling and fueling	Survey section
		<p>PERFORM STEP 3 ONLY WHEN PLATFORM IS NEEDED.</p> <p>3. Install access platforms inside missile tail section.</p> <p>4. Install air rudders. RUDDER STENCIL NUMBER MUST CORRESPOND WITH FIN NUMBER.</p> <p>a. Remove inspection plate located on outside edge of rudder.</p> <p>b. Remove barrier material from rudder axle.</p> <p>c. Remove barrier material from axle recess on missile.</p> <p>d. Insure carbon jet vane pointers indicate zero on the protractors.</p> <p>e. Insert rudder axle in recess and align.</p> <p>f. Insert retaining bolt and torque to 250 ± 25 inch pounds.</p> <p>g. Replace inspection plate.</p> <p>5. Install carbon jet vanes. EACH VANE NUMBER MUST CORRESPOND WITH FIN NUMBER.</p> <p>a. Carefully remove carbon jet vanes from packing container.</p> <p>b. Inspect for damage.</p> <p>c. Place carbon jet vanes on respective mounting plates.</p> <p>d. Insert retaining bolts and torque to 65 ± 10 foot pounds.</p> <p>6. Install main stage stick holder in mounting bracket under the valve box.</p> <p>END OF ACCESSORY EQUIPMENT INSTALLATION.</p>	

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